

## **REMARKS/ARGUMENTS**

### ***I. Procedural History of Application and Current Status of the Claims***

In the interests of advancing prosecution and – in case appeal is necessary – preparing this application for appeal, Applicants wish to present a brief overview of the procedural history of this application.

This application was filed on April 14, 2004. The claims have been rejected on the merits three times now, each time over essentially the same references. In response to each of the first two rejections, Applicants amended the claims. Now, in response to the third rejection, Applicants are submitting declarations setting forth secondary evidence of non-obviousness:

- 2007-08-23 Office Action – All claims rejected over Anderson et al. in view of Dutta et al.
- 2007-12-05 Response Filed with Claim Amendment
- 2008-02-11 Final Office Action – All claims rejected over Anderson et al. in view of Dutta et al.
- 2008-04-08 Response Filed
- 2008-08-11 RCE Filed With Supplemental Amendment Suggested by Examiner
- 2008-10-01 Office Action – All claims rejected over Anderson et al. in view of Dutta et al. in further view of De Bonet.
- 2009-03-31 Response Filed with Secondary Evidence Declarations

In Applicants' 2007-12-05 Response, Applicants presented a detailed summary of the Anderson et al. and Dutta et al. references – and explained how these two references did not even come close to suggesting Applicants' invention.

Applicants noted, for instance, that Anderson proposed a new “electronic checkbook” that was considerably different from conventional paper checks [0196] and that did not solve the need customers have for better systems for collecting, indexing, and organizing processed *conventional* paper checks.

Applicants also noted that Dutta was directed to a method and apparatus for performing check clearing processes on imaged checks but was entirely unconcerned with generating a downloadable archive or index of images of cleared paper checks for bank customers, or with providing customers with complementary software to download the index together with images of the cleared checks.

In Applicants' 2008-04-08 Response, Applicants emphasized that the combination of Anderson and Dutta failed to establish a *prima facie* case of obviousness, and pointed out with precision and particularly the limitations in each of the independent claims that found no teaching, disclosure, or suggestion in the two references.

In the Examiner's most recent action, the Examiner withdrew the rejection of these

claims as being obvious under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (U.S. Patent Application Publication Number 2001/0018739) in view of Dutta et al. (U.S. Patent Application Publication Number 2002/0152164). Namely, the Examiner conceded that Anderson does not teach displaying images of cleared paper checks and that neither Anderson nor Dutta taught archiving images of multiple cleared paper checks. (Office Action, at page 3).

However, the Examiner issued a new rejection, rejecting all of the claims as obvious under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Dutta and in further view of U.S. Patent No. 5,899,999 to De Bonet.

Now, in this response, Applicants make the following arguments: (1) De Bonet is not a pertinent prior art reference; (2) the combination of Anderson, Dutta, and De Bonet *still* fails to establish a prima facie case for obviousness; (3) there is no motivation to combine these unrelated and disparate references to read on Applicants' claimed invention; and (4) even if there was sufficient motivation to justify the combination, and even if all of the limitations of Applicants' claims could be read into the combination, Applicants' secondary evidence of non-obviousness is sufficient to overcome the rejection.

## **II. Remarks**

### **A. De Bonet is not a pertinent prior art reference**

De Bonet's invention is directed to an "iterative convolution filter for determining an image signature ... for automatically classifying images" (Abstract) – such as the collection of billions of unrelated images one might find on the Internet – that do not lend themselves to semantic categorization (col. 2, lines 20-23). De Bonet's invention makes extremely sophisticated mathematical assessments of visual similarities of different, otherwise-hard-to-categorize images in order to group different but similar images together. (6:6-16).

De Bonet does not mention check images, online banking systems or the processing or indexing of check images. De Bonet is most concerned with indexing and organizing "a potentially infinite number of" decontextualized images from innumerable disparate and unrelated sources on the Internet. Col. 4, lines 1-14. De Bonet asks "just how images, by themselves and devoid of accompanying descriptive text, can be efficiently and accurately manipulated, i.e., how such large numbers of images can first be indexed into an image database and a desired image(s) then accurately retrieved therefrom." Col. 2, lines 40-44.

To address this problem, De Bonet proposes a "query-by-example" system in which "a user supplies a group of so-called images in which each image is structurally similar to those additional images (s)he desires. Then, the invention, through a mathematical assessment of visual similarity using a substantial number of different pre-defined visual characteristics of the query images, taken collectively, against each image in an image database ... returns, as its results the image(s) in the database that is most similar to the query images." Col. 6, lines 6-16.

There would have been *no motivation* for persons of ordinary skill in the art to look

toward De Bonet's mathematical assessment system in order to categorize check images. Nor would persons of ordinary skill in the art have been motivated to look toward De Bonet's "query-by-example" image searching system to search for and identify check images.

Independent claims 1, 15, and 21 recite providing an archive and/or index generating software program *to a financial institution* for generating a downloadable archive and/or index of images of multiple cleared paper checks. A financial institution would presumably know where these images were located – and would not have to sort through “a potentially infinite number of” decontextualized images from all kinds of disparate and unrelated sources on the Internet to find them. Accordingly, there would be ***no reason to apply*** De Bonet's mathematically sophisticated image analysis system to identify and classify images as being check images.

The background section to De Bonet, moreover, proves De Bonet's invention to be focused on images that do *not* lend themselves to an objective, definite, or semantically consistent categorization. De Bonet observes that language alone, “by its very nature... often results in communication that is indefinite and ambiguous.” Col. 1, lines 24-31. “An image,” by contrast, “is a far more efficient vehicle to convey information among individuals than text is now or is ever likely to be.” Col. 1, lines 31-33. But “[u]nlike text, an image, from a semantic perspective, is not defined by a linguistic or mathematical vocabulary.” Col. 2, lines 12-13. Indeed, “vocabulary is often inadequate to fully describe all but very simple images.” Col. 2, 12-15. Moreover, “the decision as to whether an image possesses a given semantic content ... is highly subjective and, for a common image, often varies widely across different viewers.” Col. 3, line 25-30.

To address these problems, De Bonet proposes generating a “signature” of each “test image” (e.g., all the images crawled on the Internet) and each user-supplied query image “by iterative multi-level convolution filtering of pixel values for each color axis of the image.” Col. 6, lines 19-25; 51-57. The signature of each test image is then compared with “average and variance [statistic] vectors” that “are separately computed across corresponding elements and for each color axis, in all the query image signatures” that “mathematically describe the query images taken collectively.” Col. 6, lines 32-43.

But images of paper checks, by contrast, *are* “very simple images.” The images are not decontextualized; rather, they reflect a great deal of standardized textual information. Indeed, the only information of any value on the check images is textual. Any artistic or graphical information on the check image is totally irrelevant. Moreover, the relevant information set forth on a check image – unlike an arbitrary image – *does* lend itself to semantic categorization, not to mention a very objective, definite, and legally binding interpretation.

Accordingly, a person of ordinary skill in the art attempting to create Applicants' invention would have no motivation to implement De Bonet's mathematically sophisticated image analysis system – which is directed to analyzing non-textual images that are difficult to categorize and describe – to identify check images.

***B. There is no motivation to combine Anderson, Dutta, and De Bonet together***

A person of ordinary skill in the art would not be motivated to combine Anderson and Dutta with De Bonet to read on the claimed invention. This is because, as explained above, De Bonet is concerned with generating mathematically-sophisticated signatures for decontextualized images, and comparing those signatures with one of many user-supplied query images to identify potentially similar images. De Bonet is directed toward solving problems that ***do not pertain*** to cleared paper check images.

***C. The combination of Anderson, Dutta, and De Bonet still fails to establish a prima facie case of obviousness***

As set forth in section A above, De Bonet – even more than the Anderson and Dutta references – is entirely unrelated to, and very distant from, Applicants' invention. De Bonet, like Anderson and Dutta, does not recognize or address the long-felt needs to which Applicants' invention is directed.

Nevertheless, on pages 3-4 of the Office Action, the Examiner argues that De Bonet teaches the following:

- an “archive or images of multiple *cleared papers*.”
- “[a] crawler [that] automatically download[s] images when a user selects 10-12 images at a time,”
- “[a] system [that] permits users to classify [and] th[e]n retrieve [a] group of images [at] a later time”

In support of these arguments, the Examiner cites only the second-to-last paragraph (col. 24, lines 21-49) of De Bonet. In that paragraph, De Bonet states that his invention's ability to automatically crawl the Internet and then download and classify images would “drastically reduce the human effort associated with classifying massive numbers of images and accurately retrieving images therefrom.” Col. 24, lines 47-49.

The passage makes no mention of and has nothing to do with “cleared papers,” much less with enabling a financial institution to make downloadable indexed archives of cleared paper check images available to their customers. The passage also has nothing to do with making a customer-level application that enables a bank customer to view, organize, and search cleared paper check images based check- and account-related metadata.

Nevertheless, the Examiner concludes that “it would have been obvious to one of ordinary skill in the art to enable the steps of automatically find[ing] and download[ing] images in a group format to illustrate or archive images when indexing and categorizing groups of images.”

Applicants respectfully disagree, for the reasons set forth in Sections 1 and 2 above. But more importantly, the combination of Anderson, Dutta and De Bonet **simply does not establish a prima facie case of non-obviousness.**

- *Claims 1 & 15: Neither Anderson, Dutta, nor De Bonet provide software or methods for generating a downloadable index of images of cleared paper checks together with complementary software for downloading the index together with the images of the cleared paper checks.*

The combination of Anderson, Dutta, and De Bonet does not teach the following limitations found in method claim 1:

- providing an index generating software program to a financial institution for use on a first computer that generates a downloadable index and archive of images of multiple cleared paper checks;
- providing complementary software to a customer that is operable to open the downloadable index of and downloadable archive containing the images of multiple cleared paper checks, and to display the images of the cleared paper checks.

Likewise, the combination of Anderson, Dutta, and De Bonet does not teach the following limitations found in apparatus claim 15:

- index generating software on a remote computer serving a financial institution that generates indexes of images of cleared paper checks maintained for the financial institution; and
- a customer application module residing on a customer's personal computer that is operable to open the index and archive of multiple cleared paper check images, search the index, and display selected cleared paper check images from the archive.

As the Examiner acknowledges, Anderson does not teach disclose or suggest incorporating *paper* check images into a downloadable index. Anderson also does not teach or suggest complementary software that enables customers to open the downloadable index and archive, including the images of the cleared paper checks, and display those images.

Dutta likewise fails to provide software or methods for generating a downloadable index of images of cleared paper checks, or of complementary customer software for viewing them. Dutta merely discloses an OCR-based check processing system. It makes no reference to grouping a customer's various financial transactions together, or to generating monthly or other periodic account statements or reports to customers, much less to perusing downloadable indexes of a customers' cleared paper check images.

De Bonet also fails to teach any of these elements. It makes no reference to grouping a customer's cleared paper check images together, or to generating monthly or other periodic account statements or reports to customers, much less to generating, searching, and viewing downloadable indexes of a customers' cleared paper check images.

Because the combination of Anderson, Dutta, and De Bonet fail to disclose all the limitations of claims 1 and 15, there is no prima facie basis for rejecting the claims as obvious over these references.

- ***Claim 6: Neither Anderson, Dutta, nor De Bonet provide software or methods for providing checking account customers with a financial transaction bookkeeping program operable to download and display paper check images through a checking account ledger.***

The combination of Anderson and Dutta also does not teach the following limitations found in independent claim 6:

- providing a checking account customer of a financial institution with access over a network to images of paper checks that have cleared the customer's checking account;
- providing the customer with a financial transaction bookkeeping program that downloads and stores copies of the cleared paper checks images and presents images thereof through a checking account ledger;

The Examiner did not explain how the combination of Anderson, Dutta, and De Bonet teach these elements. The Office Action rejected claim 6 on the presumption that it was substantively identical to claim 1. It isn't.

In their April 8, 2008, Response, Applicants pointed out that the combination of Anderson and Dutta failed to teach these elements.

The Examiner's most recent Office Action neither makes any response to these arguments, nor explains how De Bonet supplies the missing elements.

Clearly, the combination of Anderson, Dutta, and De Bonet fail to disclose all the limitations of claim 6. Therefore, there is no prima facie basis for rejecting the claim as obvious over these references.

- ***Claim 21: Neither Anderson, Dutta, nor De Bonet provide software or methods for providing checking account customers with a software program operable to download and store digital archives of cleared paper check images drawn from their accounts.***

The combination of Anderson, Dutta, and De Bonet does not teach the following limitations found in method claim 21:

- providing a financial institution software program that periodically generates digital archives of cleared paper check images for an account customer;
- providing an account customer with secure online access to the digital archives and enabling the customer to download and store the digital archives of cleared paper check images.

The Examiner did not explain how the combination of Anderson, Dutta, and De Bonet teach these elements. The Office Action rejected claim 21 on the presumption that it was substantively identical to claim 1. It isn't.

In their April 8, 2008, Response, Applicants pointed out that the combination of Anderson and Dutta failed to teach these elements.

The Examiner's most recent Office Action neither makes any response to these arguments, nor explains how De Bonet supplies the missing elements.

Because the combination of Anderson, Dutta, and De Bonet fail to disclose all the limitations of claim 21, there is no prima facie basis for rejecting the claim as obvious over these references.

- ***Claim 31: Neither Anderson, Dutta, nor De Bonet provide software or methods for providing checking account customers with a software program operable to download and store digital archives of cleared paper check images drawn from their accounts.***

The combination of Anderson, Dutta, and De Bonet does not teach the following two limitations, in combination, found in method claim 31:

- creating a search index of preselected check information that is linked to the corresponding images of a financial account customer's paper checks and transactions; and
- downloading the images and index from the financial institution onto a customer's computer and then opening the archive and index with a computer software application on the customer's computer system that allows the customer to search the preselected fields and view any of the corresponding paper check images.

The Examiner did not explain how the combination of Anderson, Dutta, and De Bonet teach these elements. The Office Action rejected claim 31 on the presumption that it was substantively identical to claim 1. It isn't.

In their April 8, 2008, Response, Applicants pointed out that the combination of Anderson and Dutta failed to teach these elements.

The Examiner's most recent Office Action neither makes any response to these arguments, nor explains how De Bonet supplies the missing elements.

Because the combination of Anderson, Dutta, and De Bonet fail to disclose all the limitations of claim 21, there is no prima facie basis for rejecting the claim as obvious over these references.

***D. Even if the rejection were valid, Applicants' secondary evidence of non-obviousness overcomes it.***

Applicants deserve to be granted a patent on their invention. As secondary evidence of the non-obviousness of their invention, Applicants submit three declarations.

First, Applicants submit the declaration of Stephen Marceau, Vice President of Indacon (the assignee of the claimed invention), which recites the long-felt but unmet need for the invention, an explanation of Indacon's implementation of the invention, the challenges of implementation (which shows that the invention was not "easy to try"), and the skepticism of others.

Second, Applicants submit the declaration of an independent third party, Mr. Leroy Sisco, a banking industry expert with over 40 years of experience in the industry. Mr. Sisco avers that there has been a need for Applicants' invention since the dawn of Internet banking and describes the severe limitations of systems already available in the market. He describes his enthusiasm for Applicants' invention and writes that he is aware of no competitive system capable of indexing, archiving, compressing, and delivering check and other financial transaction images to customers.

Third, Applicants submit the declaration of Ronald T. Blanton, a Vice President and Information Technology Director at First National Bank of El Paso. He too describes Applicants' invention as a product that meets a long-felt need to provide customers with an efficient mechanism to download and view an electronic, indexed, and searchable archive of their cleared check images.

As set forth in the accompanying declarations, there has been a very long-felt, but unmet need for the invention. It has not been "easy to try" or implement. On the contrary, Applicants' have invested over \$2.5 million in developing this technology. Others have failed to deliver a similar product. Banks have been skeptical that Applicants could make a workable system that reduced the invention to practice.

Finally, the claimed invention is patentable under the Supreme Court's recent decision in *KSR Int'l Co. v. Teleflex Inc.* The claimed invention here is not (as the claimed invention in *KSR* was) a "combination of familiar elements according to known methods" that "does no more than yield predictable results." There are no familiar prior art applications that provide the archive or index generating and downloading modules of claims 1, 15 and 21, or that are designed to integrate processed paper check images into a customer's financial transaction bookkeeping software program. The advances made by the claimed invention require real innovation and hard work, not easily-implemented off-the-shelf tools.

***III. Conclusion***

Applicants note that the MPEP cautions that "it is to the interest of the applicants as a class as well as to that of the public *that prosecution of an application be confined to as few*



*actions as is consistent with a thorough consideration of its merits.”* MPEP § 706.07 (emphasis added). The MPEP also provides that “the invention as disclosed and claimed should be thoroughly searched *in the first action* and the references fully applied,” and that “[s]witching ... from one set of references to another by the examiner in rejecting in successive actions claims of substantially the same subject matter, will ... tend to defeat attaining the goal of reaching a clearly defined issue for an early termination, i.e., either an allowance of the application or a final rejection.” MPEP § 706.07 (emphasis added).

Applicants respectfully submit that the foregoing arguments and secondary evidence are fully responsive to the October 1, 2008 Office Action and are sufficient to put the claims in a condition for allowance. Should the Examiner desire to sustain any rejections, the courtesy of a telephone conference between the Examiner, the Examiner’s supervisor, and the undersigned attorney at (719) 689-0700 is respectfully requested in advance.

The undersigned respectfully requests that the application be allowed and passed to issue.

Respectfully submitted,



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